








# Unique approaches to children’s inquiry in early childhood education in Aotearoa New Zealand

Sarah Probine , Jo Perry , Rachael Burke , Joanne Alderson , Yo Heta-Lensen   
Helen Wrightson , and Fi McAlevey 

This paper describes a research project exploring how children’s inquiry approaches are interpreted and enacted by early childhood kaiako in Aotearoa New Zealand. Phase one comprised a qualitative survey sent to all ECE settings registered on the national data base. During phase two, the research team spent time with six early childhood settings that integrate children’s inquiry into their work with children. Findings revealed the six early childhood communities have developed their own unique approaches based on the philosophies, priorities and aspirations of their settings. Whilst Reggio Emilia has been an influence, kaiako have also woven local ideas, pedagogies and theories into their approaches. Of particular interest is how each of the settings in phase two has utilised inquiry as an approach to explore local place—investigating local pūrākau, natural taonga, and other aspects of their communities. In doing so, they have prioritised the development of their bi-cultural practice.

---

## Introduction

Children’s inquiry is an approach where [tamariki](#), with support from [kaiako](#), inquire into a particular question, working theory or concept over a period of time. Tamariki have agency to explore and develop answers and possible new questions as they create knowledge and understanding together. The term children’s inquiry is used to encompass the range of ways this approach is described in the literature. Early childhood kaiako may alternatively use the term “investigations”, “project work”, or simply “inquiry” to describe this approach. Whilst international literature has explored

approaches to inquiry in the early years, little research has examined how early childhood kaiako have interpreted these ideas in the context of Aotearoa. This article draws upon a qualitative research study which addressed this gap. The study aimed to learn about what pedagogical influences have shaped kaiako thinking. What pedagogical processes for undertaking and progressing an inquiry have kaiako developed? And how does children's inquiry impact the learning of tamariki? The research had two phases, with the first establishing which centres were using inquiry in their practice, and the second involving six early childhood settings currently using inquiry-based approaches with tamariki. Each setting's distinct approaches were explored and analysed revealing that early childhood communities in Aotearoa have developed unique inquiry approaches that are attuned to this specific context.

## **Inquiry based learning in the 21<sup>st</sup> century**

Tamariki in Aotearoa are already learning to navigate the complexity of life in the 21<sup>st</sup> century. They may have encountered the opportunities and challenges posed by the digital world, those of the recent Covid19 pandemic, and, as citizens of an industrialised nation, are living in a period of significant environmental and economic uncertainty (Krogh & Morehouse, 2020; Trilling & Fadel, 2009). The skills and dispositions that have been identified as necessary to navigate these challenges include creativity, problem-solving, flexibility, collaboration, leadership, communication, curiosity, and innovation (Krogh & Morehouse, 2020; Stacey, 2019). In addition, van Vuuren (2023) suggests that tamariki need to develop a "grounding of respect and care for humans and the non-human" (p. 178), and *Te Whāriki* (Ministry of Education; MoE, 2017) emphasises the importance of tamariki developing connections to their local place, asserting that "a foundation of remembered and anticipated people, places, things and experiences will give them the confidence to engage successfully in new settings" (p. 26). The authentic learning experiences promoted by children's inquiry have been identified by several authors as having the potential to foster such skills and dispositions (Krogh & Morehouse, 2020; Meier & Sisk-Hilton, 2020; Stacey, 2019). This is because as tamariki work collaboratively to research and explore their own questions, they have opportunities to form relationships with each other, but also with materials and their environments. They develop the capacity to listen and learn from each other, to negotiate, to sometimes lead, and at other times to compromise (Kahuroa et al., 2021; Krogh & Morehouse, 2020). As an inquiry develops, children use the arts and other cultural tools valued within their communities to represent, share and adapt their thinking (Stacey, 2019). An important aspect of children's inquiry is that inquiries

continue for sustained periods of time as tamariki are encouraged to revisit their thinking before developing new ideas. This supports them to make connections between experiences and to overcome challenges, promoting learning dispositions such as problem-solving, resilience and curiosity (Hedges, 2014). These experiences can serve to develop metacognitive understanding and develop children's identities as learners "so that they can engage with new contexts, opportunities, and challenges with optimism and resourcefulness" (MoE, 2017, p. 7).

## Children's inquiry in Aotearoa

One of the key strengths of *Te Whāriki* is that it offers key principles for curriculum development without prescribing a particular approach. Thus, the ability for each setting to weave their own curriculum has given kaiako in Aotearoa the autonomy to choose to incorporate children's inquiry into their teaching. The broad principles and strands of *Te Whāriki* align closely with those of inquiry approaches as they aspire for tamariki to be "competent and confident learners and communicators, healthy in mind, body and spirit, secure in their sense of belonging and in the knowledge that they make a valued contribution to society" (MoE, 2017, p. 5). In line with this, children's inquiry encourages children to lead and contribute within their learning communities by encouraging them to research and explore questions and theories that hold meaning for them. Further, the concepts of working theories (Hedges, 2021) and learning dispositions which are woven throughout the curriculum are also valued within inquiry approaches (Stacey, 2019). The 2017 version of the curriculum more explicitly highlights the intentional role of the kaiako. It offers guiding questions throughout, some of which relate closely to inquiry.

The Reggio Emilia approach has been influential on an international scale for its democratic approach to early childhood education (Kroflič, 2011), which includes long term inquiry-based projects known as "progettazione" (flexible planning) (Gardner & Jones, 2016). For many early childhood educators in Aotearoa, engagement with the pedagogical ideas of Reggio Emilia has acted as a provocation to delve deeply into teaching practice. For some teachers, this engagement has supported them to reframe how they view tamariki as rights-bearing citizens, value kaiako as researchers and listeners, understand the impact of the environment and materials on learning, and to recognise how a multiliteracies, arts rich curriculum can deepen learning and engagement. Whilst examining these ideas has been of great value for many kaiako, there is also a risk that importing pedagogical ideas from the context of Italy to Aotearoa, without deep examination of those ideas may result in replication rather than

reinterpretation (Pohio, 2009; Miller & Pound, 2010). Further, Alcock and Ritchie (2018) question whether a focus on international pedagogies could possibly silence local priorities, and of particular importance, a commitment to bi-cultural practices.

## Introducing the project

The research is a collaborative project involving several researchers working in initial teacher education across a range of institutes. The study employed a narrative inquiry approach (Clandinin, 2014) underpinned by bioecological (Bronfenbrenner, 1979) and socio-cultural theories (Vygotsky, 1962), which recognise knowledge is constructed and influenced by a complex web of contextual perspectives and associated histories.

Phase one comprised a questionnaire sent to all early childhood centres registered on the national database of ECE services, inquiring about their knowledge of, and possible work with inquiry approaches. Phase two involved a small number of purposively selected services across Aotearoa and aimed to capture diverse pedagogical perspectives across a range of geographic locations. At each setting, data collection has included semi-structured interviews where teaching teams explained their journey with children's inquiry, and one to two researchers spent time observing a current inquiry.

The narratives collected at each setting were analysed collaboratively by the research team, which ensured the application of multiple perspectives (Liao & Hitchcock, 2018). All interviews, focus groups and recording of inquiries were transcribed and the researchers thematically analysed this material, developing initial codes, themes and verbatim quotes.

Ethical approval for the project was sought and granted by the lead researcher's institute followed by approval from the ethics committees of the other institutes. Five of the six settings agreed to retain their identities in the research, and one chose to be identified by a pseudonym.

## Findings

### *Unique frameworks that draw on multiple influences*

All six early childhood settings had thoughtfully developed their pedagogical approaches to inquiry. These approaches included initiating and sustaining inquiries

over time, capturing pedagogical documentation, and engaging in meaningful ways of involving tamariki and whānau. The settings with larger teaching teams have formalised their approaches by developing tangible frameworks to guide teaching teams through the inquiry process. These frameworks are particularly helpful in supporting newer or less experienced team members to work with children's inquiry. The wealth of experience offered by core members of each team, who had been working with this approach for many years and with each other for some time, was particularly valuable in supporting teaching teams to engage in deep pedagogical discussions and to adapt and refine their practices over time.

Each of these early childhood communities have drawn upon a myriad of influences, both local and international, to conceptualise their approaches. All six settings cited the significant impact of Reggio Emilia; for example, how they approach pedagogical documentation, reflection, their views of tamariki as learners and their role as kaiako. However, these settings also referred to various other influences that had shaped how each team valued and approached their inquiry work with tamariki. A key influence in all six settings was *Te Whāriki*. For example, the framework to guide inquiry projects developed by Little Doves Early Learning Centre in Auckland makes specific links to *Te Whāriki* during the initial planning phase of an inquiry and as the inquiry progresses. However, Sarah, the pedagogical lead of this setting, highlighted that their framework was not fixed. She explained, “We're not going to impose a system and approach to inquiry and then rigidly stick with it ... we want to be open to continually evolving it and refining it and making it better as time goes on.” Another example is Daisies Early Childhood Education and Care Centre in Wellington, which cites an extensive range of both local and international pedagogical influences as inspiration for their pedagogy.

### ***Deep value for relationships with tamariki, and with whānau and community***

[Ngā hononga](#) is one of the four principles of *Te Whāriki* and so the notion of relationships being a foundational aspect of everything kaiako do was not a surprising finding. What was unique, however, was the way in which inquiry acted as a nucleus for kaiako to value and develop relationships as they focused deeply on the interactions of tamariki, and their working theories and dispositions. The shared focus that inquiry fosters also serves to connect kaiako as they collaborate in interpreting the learning, to then make choices about how to document and progress inquiries over time. At the time of data collection, the early childhood sector was still being significantly impacted by the pandemic, yet the settings we visited had managed to maintain environments of calm, sustained focus.

A rich example of a focus on relationships was offered by Michelle at Li'l Pumpkins, an early childhood setting in Hamilton. She described how one of the parents had built a [wharenuī](#) on the centre's grounds and a child initially developed a working theory that it might be a bus stop or a treehouse. The children's curiosity was the impetus for an inquiry which strengthened connections to whānau and community, beginning with exploring the histories of Tainui, the [iwi](#) of this region, through talking with a local [kaumatua](#) and learning about the journey of the recycled rimu wood for the wharenuī which had come from demolished Waikato homes. The setting held a [pōwhiri](#) for [whānau](#), iwi and the local community to officially open the wharenuī, and produced a book documenting the project.

### ***Connections to local place***

A particularly significant finding was that all six settings have chosen to link their current inquiries to their local place. *Te Whāriki* recognises the importance of all tamariki developing “a sense of connection to others and the environment” (MoE, 2017, p. 31). These settings have utilised inquiry as a means to achieve this aspiration. For example, the tamariki at Pakauranga Baptist Kindergarten have been theorising about the creatures that might live in the local estuary as part of their inquiry. Kaiako presented the local [pūrākau](#) of Te Moko Ika A Hikuwaru, a [taniwha](#) who fell in love with Te Kopua Kai-a-hiku (now known as the Panmure Basin). As children's thinking grew, a plan developed to make Te Moko Ika A Hikuwaru out of wood. Supported by their kaiako, Jacqui, tamariki worked to turn their plan into a reality. An inquiry into the associated [pūrākau](#) evolved over many weeks as the children revisited the [pūrākau](#) through different media, including stop motion film. In a paper exploring a previous research project (Lees & Ng, 2020), both kaiako at this setting wrote:

As the children and the teachers learnt more about our local area, we became increasingly keen to learn more about the history of this place, and to learn the stories of this area. To nurture deep connections with a place, we felt that the children need to hear the stories that are part of that place, that this would grow their understandings in the same way that knowing the stories of our families helps us to grow our relationships with them. (p. 24)

At Kauri Park Kindergarten, the kaiako and tamariki have been visiting their local [ngahere](#) as a means to establish a new inquiry. Through giving tamariki time to explore and connect with the ngahere, a fascination emerged with the animal traps they discovered. Their curiosity about the traps led the group to connect with their local primary school,

and tamariki are now charged with replacing the ink pads that determine the species living in the space. Over time, tamariki have developed a sense of responsibility for their local ngahere, initiating the removal of rubbish and noxious weeds as they move through the space.

### ***Commitment to bi-cultural practice***

The focus on local place through the inquiry of tamariki had implications for how the settings enacted their commitment to the bicultural foundation of *Te Whāriki* (MoE, 2017) which “recognises Māori as tangata whenua” and “assumes a shared obligation for protecting Māori language and culture” (p. 6). At Toi Ohomai Childcare Centre in Tauranga, Helena explained that her team had been attending the local Kāhui Ako (community of learning) meetings and that those experiences have fostered stronger community connections, bi-cultural understandings and inspired some of their recent inquiries. At these meetings, they were introduced to the Paritaha Kaitiaki Model, developed by local iwi, Ngāi Te Rangī, which provides guidance on how kaiako can incorporate bi-cultural approaches using the metaphor of the paraparaumu (midden). “There’s been some fantastic speakers at that who’ve been talking about how there’s this local history, local curriculum that’s coming in and even how we can bring that into our level because its planting that seed and its all the foundations that it builds on in the later years.” The current inquiry at Toi Ohomai is exploring the [whakapapa](#) of tamariki and is supporting them to make connections to local place through pūrākau and ngā [atua](#) (the tamariki of Ranginui, the sky, and Papatūānuku, the earth, who are also the guardians of their parents’ domains). Helena feels the focus on whakapapa fosters whānau involvement as tamariki and their whānau share their knowledge and make connections between their families and the stories and places of Tauranga Moana and the rest of Aotearoa.

## **Discussion**

Children’s inquiry is an approach that some kaiako in Aotearoa have been exploring and developing throughout the past four decades. We found that the kaiako contributing to our research have drawn upon a range of pedagogical influences and have established frameworks and pedagogical approaches that intersect and intertwine with our national curriculum and the key imperatives woven throughout it. These teaching teams have spent significant time developing unique approaches to inquiry as each setting weaves “their own unique curriculum whāriki” (MoE, 2017, p. 7) according to the priorities, values and aspirations of their communities. Whilst some scholars have voiced concern

that engaging with international pedagogies could potentially silence localised theories and values about how and what young children should learn, for the six settings involved in our research, this was not the case. Engagement with the pedagogical ideas of Reggio Emilia was only part of each setting's story with inquiry, however, it was a crucial element of their pedagogical journeys likely due to the many parallels that exist between this work and *Te Whāriki*. For example, Giardiello et al. (2019) argue that “at the centre of the Reggio pedagogy is the child with potential, who is seen as the competent learner, able to build relationships; who holds firm to his or her own values; who respects others; who embodies a curiosity and open-mindedness to all that is possible” (p. 117). This image of childhood aligns closely to that reflected within *Te Whāriki*.

Unique to *Te Whāriki* is its bicultural foundation. Both the unique pedagogical approaches developed at each setting, and their current inquiries make visible how these early childhood communities have prioritised the development of their bi-cultural practice. We found the interweaving of inquiry and place-based pedagogy particularly significant as it was through examination of place through inquiry that tamariki began to engage meaningfully in the history and pūrakau of their place, and to connect with values drawn from te ao Māori; for example, developing a sense of kaitiakitanga (guardianship). Similarly, Tulloch et al. (2023) argue that exploring place can provide tamariki with “authentic and meaningful ways to experience the taste, sounds, smells and textures and sights of the other-than-human world” creating “a unique opportunity for an education that is holistic, place-based, immersed in local contexts, relational and culturally responsive” (p. 97). Using inquiry as a pedagogical approach to connect with place was significant as it positions the curiosities, working theories and questions of tamariki as the central driving force of each inquiry, which results in tamariki them being deeply engaged in their learning. Hedges et al. (2014) agree, asserting that when children are engaged in inquiry that is meaningful to them, they are more engaged and therefore more likely to make connections between experiences, deepen understanding and develop learning dispositions such as problem-solving.

Genishi and Goodwin (2008) highlight the critical role of kaiako in the inquiry process arguing that “children are only at risk of failing in school when curricula leave no room for their multiple interests and identities” (p. 278). The focus on relationships, and deep listening that the kaiako in our research all deeply value creates an environment of calm, unhurried learning. Each inquiry creates a shared focus which positions both tamariki and kaiako as agentic contributors to the learning as it unfolds. The unique images of tamariki, kaiako, and their community shape each setting's approach to inquiry (Kroflíč, 2011). Tamariki in these settings are valued as active collaborators



taking part in shared leadership opportunities driven by their prior knowledge, ideas and curiosity; all of which are seen as integral aspects of any inquiry framework (Morris, 2004).

## Conclusion

The findings of our research have made visible the unique, contextualised approaches to children's inquiry that kaiako in Aotearoa have developed. These approaches each incorporate aspects of *Te Whāriki*, particularly its bicultural foundation. At the centre of children's inquiry are tamariki themselves, as kaiako centralise their questions and working theories as a basis for their inquiry work. What has become apparent as we have engaged in the research, is a need for further opportunities for kaiako to discuss and share their work, and for resources to be developed that guide kaiako through the inquiry process in a culturally responsive and relevant way that is grounded in the priorities and values of the early childhood curriculum and the wider context of Aotearoa.

---

### *In loving memory of Helen Rae Wrightson*

*'Kua riro atu ki tōna maunga teitei'*

*The research whānau wish to acknowledge (Dr) Helen Wrightson—our long term colleague, Tiriti partner, early childhood teacher educator, academic and researcher—for her invaluable contribution to this project, her immense passion for the right of the child to be curious, her extensive knowledge of early childhood education and visual arts pedagogies, and her sustained commitment to bi-cultural teaching and learning. E te mareikura, moe mai, moe mai, moe mai rā.*

---

## References

- Alcock, S., & Ritchie, J. (2018). Early childhood education in the outdoors in Aotearoa New Zealand. *Journal of Outdoor and Environmental Education*, 21(1), 77–88. <https://doi.org/10.1007/s42322-017-0009-y>
- Bronfenbrenner, U. (1979). *The ecology of human development*. Harvard University Press.
- Clandinin, D. J. (2014). *Engaging in narrative inquiry*. Left Coast Press.
- Education Council New Zealand. (2017). *Our code, our standards: Code of professional responsibility and standards for the teaching profession*.
- Gardner, A. F., & Jones, B. D. (2016). Examining the Reggio Emilia approach: Keys to understanding why it motivates students. *Electronic Journal of Research in Educational Psychology*, 14(3), 602–625.
- Genishi, C., & Goodwin, A. L. (2008). Diversities across early childhood settings: Contesting identities and transforming curricula. In C. Genishi & A. L. Goodwin (Eds.), *Diversities in early childhood education: Rethinking and doing* (pp. 273–278). Routledge.
- Giardiello, P., Leydon, G., & Hargraves, L. (2019). Te Whāriki. In N. McLeod & P. Giardiello (Eds.), *Empowering early childhood educators: International pedagogies as provocation* (pp. 155–174). Routledge
- Hedges, H. (2014). Sophia's funds of knowledge: Challenging gendered working theories. *International Journal of Early Years Education*, 22(1), 84–96.
- Hedges, H., & Cooper, M. (2014). Inquiring minds, meaningful responses: Children's interests, inquiries, and working theories. *Teaching and Learning Research Initiative*. <https://eric.ed.gov/?id=ED560974>
- Hedges, H. (2021). Working theories: Current understandings and future directions. *Early Childhood Folio*, 25(1), 32–37. <https://doi.org/10.18296/ecf.0093>
- Kahuroa, R., Mitchell, L., Ng, O., & Johns, T. (2021). Tamariki's working theories about Covid-19 in Aotearoa New Zealand. *European Early Childhood Education Research Journal*, 29(1), 6–20.
- Kroflič, R. (2011). On the image of the rich child, and on democracy and experimentation as preconditions for good preschool education. *Journal of Contemporary Educational Studies / Sodobna Pedagogika*, 62(4), 172–189.

- Krogh, S.L., & Morehouse, P. (2020). *The early childhood curriculum. Inquiry learning through integration* (3<sup>rd</sup> ed.). Routledge.
- Lees, J., & Ng, O. (2020). Whenuatanga: Our places in the world. *Early Childhood Folio*, 24(1), 21–25.
- Liao, H., & Hitchcock, J. (2018). Reported credibility techniques in higher education evaluation studies that use qualitative methods: A research synthesis. *Evaluation and Program Planning*, 68(1), 157–165.
- Meier, D., & Sisk-Hilton, S. (2020). *Nature education with young tamariki: Integrating inquiry and practice* (2<sup>nd</sup> ed.). Routledge.
- Miller, L., & Pound, L. (2010). Taking a critical perspective. In L. Miller & L. Pound (Eds.), *Theories and approaches to learning in the early years* (pp. 1–18). Sage.
- Morris, M. (2004). Interacting in science in early childhood: A 'project' approach. *Teaching Science*, 50(3), 1–14.
- Ministry of Education. (2017). *Te Whāriki. He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum*.
- Pohio, L. (2009). Reggio Emilia pedagogy in early childhood education: How can this approach enhance visual arts experiences in New Zealand? *He Kupu*, 2(2), 10–18.
- Stacey, S. (2019). *Inquiry-based early learning environments: Creating, supporting, and collaborating*. Redleaf Press.
- Tulloch, L., Andrews, M., Charteris, K., & Shorter, T. (2023). On snakes, snails and hedgehog tales: Critical reflections on early childhood education for sustainability (ECEfS) in the Anthropocene. *He Kupu*, 7(3), 87–101.
- Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times*. John Wiley & Sons.
- van Vuuren, E. J. (2023). Early childhood in the era of post-humanism: Lending an ear to nature. *Journal of Curriculum Studies Research*, 5(1), 171–180.
- Vygotsky, L. S. (1962). *Thought and language*. Harvard University Press.

**AUTHOR PROFILE**

**Sarah Probine**, Auckland University of Technology

**Jo Perry**, Manukau Institute of Technology

**Rachael Burke**, Toi Ohomau Institute of Technology

**Joanne Alderson**, Open Polytechnic

**Yo Heta-Lensen**, Auckland University of Technology

**Helen Wrightson**, Unitec

**Fi McAlevey**, Open Polytechnic

The children's inquiry research team have been collectively working on this research since 2021. They all work in initial teacher education (early childhood) across a number of institutes. Their research interests include visual arts pedagogy, inquiry-based learning, indigenising education, language revitalisation, mixed-method research approaches, Kaupapa Māori research, auto-ethnographic methods, critical Kaupapa Māori theory in education, multi-agency partnerships, leadership and mentoring, innovation in ECE and child-centred learning, visual research methodologies, supporting children and families with English as an additional language, relationships between the processes of teaching and learning, educational technologies, teaching in the 21st century, research pedagogies, cross-cultural education, social justice, LGBTQIA+ studies, and implicit cultural practices in early childhood education.

Email: [Sarah.probine@aut.ac.nz](mailto:Sarah.probine@aut.ac.nz)